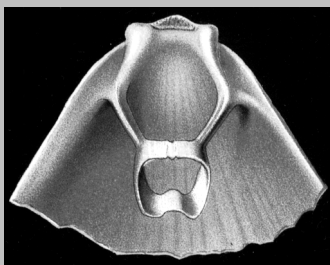


The Brachidium



Editorial

Dear fellow brachiopodologists,

Now that we have entered the new millennium, it seems to be the right time to start using new techniques. This first issue of *The Brachidium* takes advantage of the industry-standard for electronic publishing: Adobe Acrobat® PDF format. With the free viewing and printing tool (Acrobat Reader) being available for virtually any computer platform and in many languages, the format allows cheap and versatile production and distribution of an electronic periodical. Furthermore, the new version of the *International Code of Zoological Nomenclature*, which has become the current one on January 1, 2000, allows for electronic publishing, as long as some provisions are met. Therefore, this periodical will be sent on CD-ROM to the publicly accessible libraries of several institutions (see [Colophon](#) for a list) as soon as each new issue is ready. For any of you, new issues can easily be downloaded from our Internet site or any of the mirror sites.

The new Code even enables validly publishing of new taxa in an electronic periodical like this. The sending of CD-ROMS to institutional libraries ensures that the electronic periodical is kept as it was originally published. Therefore, there is virtually difference with an "old-style" paper periodical, except for reduced production costs and speed of production. We sincerely hope that the ease of use and versatility of this electronic periodical will convince you to use it extensively. For an initiative like this one, it is crucial to get manuscripts. We welcome a variety of manuscripts of any length and on any subject: announcements, field trip articles, monographic works, etc. Furthermore, the low-cost concept makes it possible to publish as many full-colour illustrations as you wish to use.

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A sample of *Frenulina sanguinolenta* in the Mediterranean Sea

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Key Words

Lophophorata, Brachiopoda, Articulata, Recent, Mediterranean Sea, Laqueidae, *Frenulina sanguinolenta*.

Introduction

A living specimen of *Frenulina sanguinolenta* (Gmelin) has been found in the Ionian Sea, at Torre dell'Inserraglio, between Gallipoli and Porto Cesareo (fig. 1).



fig. 1. Location map; the asterisk indicates Torre dell'Inserraglio

This brachiopod has been picked up by a diver from branches of the Precious Coral, *Corallium rubrum* (Linnaeus), at a depth of 70 m, Coralligenous biocoenosis.

Description

Super-family Terebratelloidea King, 1850
Family Laqueidae Thomson, 1927 emend. Richardson 1975
Sub-family Kingeninae Elliot, 1948 emend. Richardson 1975
Genus *Frenulina* Dall, 1894

Frenulina sanguinolenta (Gmelin, 1792)
(Figs. 2-3)

- 1792 *Anomia sanguinolenta* Gmelin — Systema Naturae, p. 3347
- 1886 *Megerlia sanguinea* Davidson — Monograph of recent Brachiopoda, p. 108, Pl. XX, figs. 1-8
- 1965 *Frenulina sanguinolenta* Hatai — Treatise on invertebrate paleontology, p. H 842, figs. 727-1
- 1996 *Frenulina sanguinolenta* Saito — Early loop ontogeny of some recent laqueid brachiopods, p. 492, fig. 5

Shell small-sized, biconvex, rectimarginate, smooth, apex low, sub-erect, foramen large, with disjunct deltidial plates; cardinal tooth with dental plates (fig. 2b); cardinal process small; brachidium with Laqueidae-type loop, connected with the median septum at the latter's end. The shell shows a thin and dense punctuation and is decorated by red-colour vertical bands, not so well defined, and more intense in the front (fig. 3.).

The specimen was damaged during its lifetime and is now a little misshapen (fig. 2A-B). The lophophore is dried-up and partially covers the brachidium, which is therefore not wholly visible: one can notice the crura, the descending branches, the transverse one, and the joint to the septum (fig. 2c). It appears to belong to a *Frenulina*, though it is impossible to state with any certainty which was its stage of development, whether bilacunar or bilateral (Richardson, 1975). In any case, it seems to be an adult shell. Due to its visible characters and colour, it can be attributed to *Frenulina sanguinolenta*.

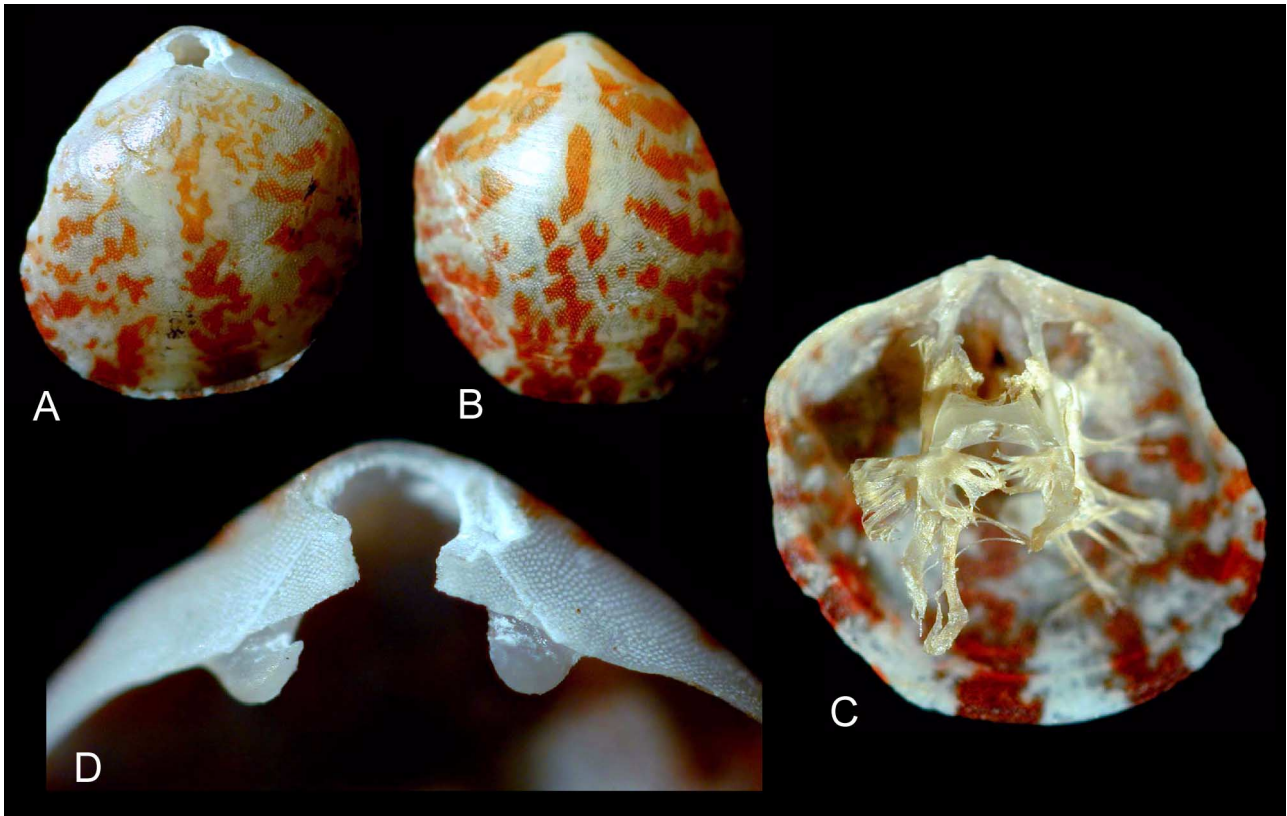


fig. 2. *Frenulina sanguinolenta*. A. Dorsal view. B. Ventral view. C. Interior of dorsal valve. D. Cardinal area of ventral valve. The specimen is 8.5 mm long.

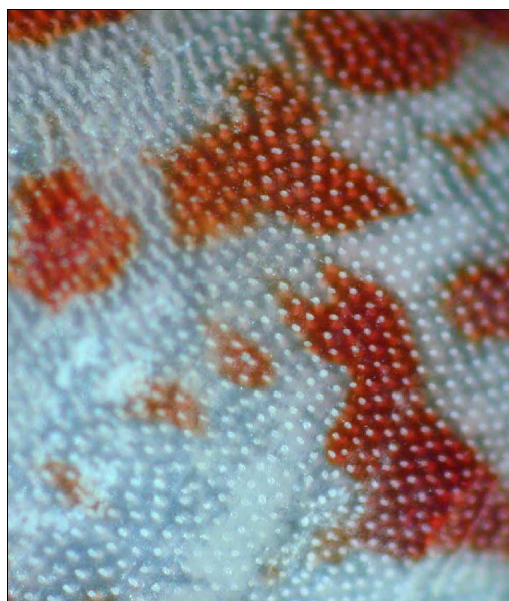


fig. 3. *Frenulina sanguinolenta*. A detail of the shell surface (ventral valve) with red spots and punctae. The area figured is 2.0 x 2.3 mm².

Size: length 8.5 mm, width 7.5 mm.

Distribution: The genus *Frenulina* is widespread in the Pacific and Indian Ocean; *F. sanguinolenta*, though it is only found in the Pacific from N. Australia to the Ryukyu Islands, at a depth of 18 to 580 m (Cooper, 1973; Dall, 1920; Davidson, 1886-1888; Hatai, 1965; et al.).

Considerations

It is the first time that a specimen belonging to this genus is found in the Mediterranean Sea.

Due to the difficulty in diving so deep and see the organism, we have no certainty concerning its real diffusion. In this particular case, it was the search for corals that led to picking up the brachiopod. It might be one single specimen or even a more or less consistent community though observable only with difficulty.

It might have arrived along with other organisms imported for aquaculture or any other purpose, even if it is not at all easy to imagine how this happened and in which phase of development of the organism itself (eggs, larvae, adult stage). The arrival in the Mediterranean of some tropical organisms from the Red Sea has been noticed in recent times: they have well adapted themselves to the new environment, but the travel was much easier and shorter in their case.

Acknowledgements

My thanks are due to Dr. Michiko Saito for critically reading the manuscript.

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On the authorship and year of publication of *Anomia venosa* (Articulata, Terebratellida, Terebratellidae)

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Abstract

An overview of the history of the introduction of *Anomia venosa* is given. The taxon represents a common articulate brachiopod from southern South America and almost never is its authorship and date of publication cited correctly in literature.

Key words

Lophophorata, Brachiopoda, Articulata, Terebratellida, Terebratellidae, *Magellania*, *Anomia venosa*, nomenclature.

A common and large southern South American articulate brachiopod is usually listed in literature as *Magellania venosa* (Lightfoot) or as *Magellania venosa* (Solander in Dixon). In this paper, we discuss the authorship and date of publication of the taxon.

Lightfoot (1786: 166) when compiling the "Portland catalogue" (an auction catalogue that is often erroneously attributed to Solander, see Rehder, 1967) was the first to list the binomen by stating:

"A very fine specimen of *Anomia venosa*, S. unique — the country unknown."

In this sentence, "S." stands for Solander, of whom a manuscript name or a name on a collection label had been taken. Unfortunately, the sentence does not include a formal description and no reference to a figure is given. Furthermore, the "Portland Catalogue" does not contain figures. Consequently, the taxon must be considered a *nomen nudum*. Rehder (1967) evidently came to the same conclusion, as he did not list the taxon as valid. The whereabouts of the specimen sold at the auction (to C.A. de Calonne) are not known, although there is a chance that it is in the collections of the Natural History Museum, London, although not recognised as such.

An other author commonly involved when the binomen is cited is Dixon, who in 1789 published his "Voyages around the world". On page 355 of this work, the taxon is described as *Anomia venosa* Solander. The text reads as follows:

"At Falkland Islands we met with a curious kind of shell, of the *Anomia* genus of Linnaeus, of which, though the species are numerous in a fossil state in most parts of the globe, few have been discovered recent, or fresh from the sea. One only of this sort was before known in Europe which was brought over by my late worthy commander, the much regretted Capt. Cook, in his first voyage around the world: it was in the Portland Museum, and was named by the late celebrated Dr. Solander, in his M.S. description of that splendid cabinet, *Anomia venosa*, which specimen is now in the collection of Dr. Calonne of London. This kind (as do all that are properly of this genus) adheres to coral rocks, by a ligament that comes from the animal through the hole in the larger valve. The internal structure (peculiar to shells of this genus) is very angular, and consists of two testaceous rays, which commence near the hinge in the latter valve, where they adhere; from whence leaving the shell, they proceed to near the edge, then bend towards the other valve, and turn back to their commencement, where they unite. The internal pair is very delicate, and breaks upon the smallest touch; it is thicker in the part nearest to the larger valve. The shell has its name from certain parts of the animal which run in a branched form along the inside of the shell, which being held to a strong light of 2 candle, gives it a beautiful veined appearance. The outside is smooth, and of a pale brown colour. The specimen from which the engraving was made is in the private collection of Mr. G. Humphrey dealer in natural curiosities, Albion Street near Blackfriars Bridge London."

Furthermore, it is illustrated by an unnumbered figure on a plate facing page 208 (Pl. 11?), an illustration which we reproduce here [fig. 4].

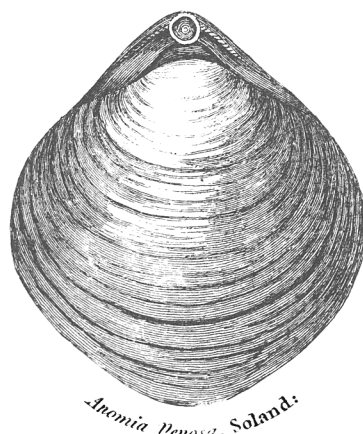


fig. 4. Type figure of *Anomia venosa* Dixon, 1789.

The description and figured specimen both agree well with the present concept of the taxon. There is no evidence that Solander or Lightfoot participated in producing Dixon's book. Dixon adopted Lightfoot's bi-nomen from the "Portland Catalogue", and consequently validated it by adding a formal description and a figure. At the Natural History Museum, London, a specimen is kept which very much resembles Dixon's original figure. It is labelled as follows:

"*Terebratula globosa* Valenc" and on the back of the tablet is written in pencil "*Terebratula (Waldheimia) globosa* – Valenciennes described by Valenc. in Lamarck's *Am. S. Verte's* and verified by type specimen sent to L. Reeve by Valenciennes himself."

Underneath this, Thomas Davidson has written:

"No This is the real wald venosa of Solander figured in Capt Dixons travels round the world. TD".

It is ambiguous whether Davidson means that this specimen is the figured one or not. There is neither a locality with the specimen nor any indication that it came from Humphrey.

From the data cited above, it must be concluded that it was Dixon, and not Solander or Lightfoot who first validly introduced the taxon. The correct citation of the species therefore is *Anomia venosa* Dixon, 1789. At present, the species is usually assigned to the genus *Magellania* Bayle, 1880, belonging to the family Terebratulidae King, 1850 (Cooper, 1973; Zezina, 1985, and many others not cited herein). It is the largest extant brachiopod and is not uncommon in collections.

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Varia

- The **4th International Brachiopod Congress** will be held at The Natural History Museum, London, from 10th – 14th July 2000. The Congress will provide an opportunity for scientists from around the world to discuss current research and debate questions stimulated by the present revision of Part H of The Treatise on Invertebrate Paleontology. The Natural History Museum has a global collection of Recent and fossil brachiopods. Individuals are welcome to include a study visit in their trip to London but must arrange this with Sarah Long prior to their arrival. The collections will be unavailable for study during the actual dates of the Congress. Congress general enquiries should come to Sarah Long on (0)207 942 5712 (telephone) or (0)207 942 5546 (fax). The fax doesn't always work with the new London code so if there are problems use the old code (0171). For further information, please refer to: <http://www.com.univ-mrs.fr/EuroBrachNet/Con.htm>
- Interested in duplicate reprints on Brachiopoda as well as other biological/palaeontological subjects? Please check: <http://homepage.cistron.nl/~biosysm/reprint.htm>
- An interesting paper dealing with colouration of Pleistocene brachiopods from New Zealand can be found at, and downloaded from, http://www-odp.tamu.edu/paleo/1999_2/toc.htm. The paper is named: *Original Shell Colouration in Late Pleistocene Terebratulid Brachiopods from New Zealand*, and is authored by Gordon B. Curry.

Colophon

The Brachidium is a free electronic periodical covering information on Phoronida and Brachiopoda. The periodical can be downloaded freely from the Internet. Publishing in it is also free-of-charge. There are virtually no limitations regarding publication in *The Brachidium*. Each document is welcomed and there is no limitation when it comes to full-colour illustrations.

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The editors of *The Brachidium* will process each manuscript to comply with the formatting of the electronic periodical.

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- United States National Museum, Smithsonian Institution, Washington, DC, USA

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